


## EAST Search History



Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L2	745	(544/264,265,267,271,272,276,277 OR 546/113,118 OR 548/483,484,485, 486,492,505,509).ccls. AND (((ethylene ADJ carbonate) or (propylene adj carbonate) or (butylene adj carbonate) or ethylenecarbonate or propylenecarbonate or butylenecarbonate) OR (dimethylacetamide or DMAC))	US-PGPUB; USPAT; USOCR	OR	OFF	2007/06/08 11:07

126766

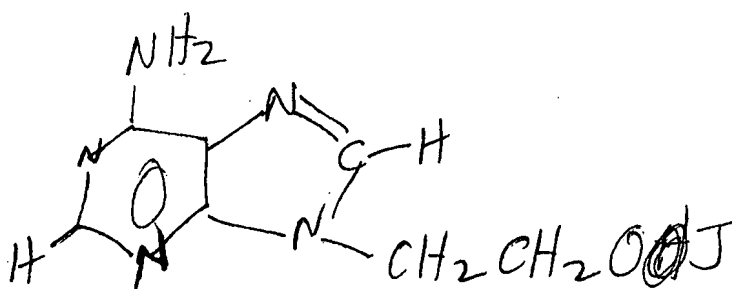
# SEARCH REQUEST FORM

U.S. DEPARTMENT OF COMMERCE  
Patent and Trademark Office

Requestor's Name: BERCH Serial Number: PCT US02/25540  
 Date: 7/9/04 Phone: 571-272-0663 Art Unit: 1624  
Office Rem 5C01 Mailbox 5C18

## Search Topic:

Please write a detailed statement of search topic. Describe specifically as possible the subject matter to be searched. Define any terms that may have a special meaning. Give examples or relevant citations, authors, keywords, etc., if known. For sequences, please attach a copy of the sequence. You may include a copy of the broadest and/or most relevant claim(s).



10523938

A: J = H

n = 1-8

B: J = -A<sub>n</sub> -

A = C/O

CAS react: A → B

Refs must be 2002 or earlier

If no hits, try again with n=0

15:07

1116

=> fil casreac  
COST IN U.S. DOLLARS  
FULL ESTIMATED COST

SINCE FILE	TOTAL
ENTRY	SESSION
0.42	1327.86

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE	TOTAL
	ENTRY	SESSION
CA SUBSCRIBER PRICE	0.00	-16.65

FILE 'CASREACT' ENTERED AT 15:01:27 ON 09 JUL 2004  
USE IS SUBJECT TO THE TERMS OF YOUR CUSTOMER AGREEMENT  
COPYRIGHT (C) 2004 AMERICAN CHEMICAL SOCIETY (ACS)

Copyright of the articles to which records in this database refer is held by the publishers listed in the PUBLISHER (PB) field (available for records published or updated in Chemical Abstracts after December 26, 1996), unless otherwise indicated in the original publications.

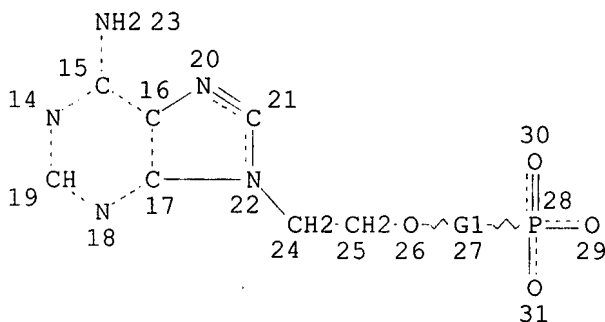
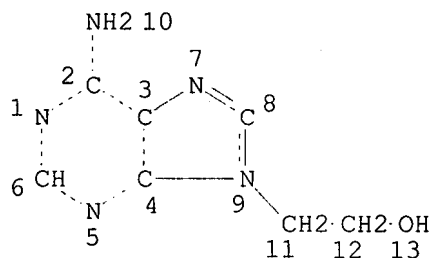
FILE CONTENT:1840 - 4 Jul 2004 VOL 141 ISS 1

\*\*\*\*\*  
\*  
\* CASREACT now has more than 8 million reactions \*  
\*  
\*\*\*\*\*

Some CASREACT records are derived from the ZIC/VINITI database (1974-1991) provided by InfoChem, INPI data prior to 1986, and Biotransformations database compiled under the direction of Professor Dr. Klaus Kieslich.

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> => d 15 que stat;d 1-2 fhit cbib abs  
L4 STR



REP G1=(0-8) A  
NODE ATTRIBUTES:  
DEFAULT MLEVEL IS ATOM  
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:  
RING(S) ARE ISOLATED OR EMBEDDED  
NUMBER OF NODES IS 31

STEREO ATTRIBUTES: NONE  
L5 2 SEA FILE=CASREACT SSS FUL L4 ( 9 REACTIONS)

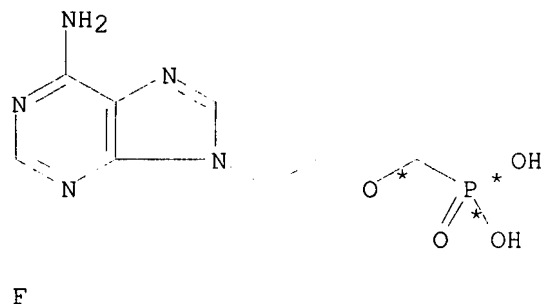
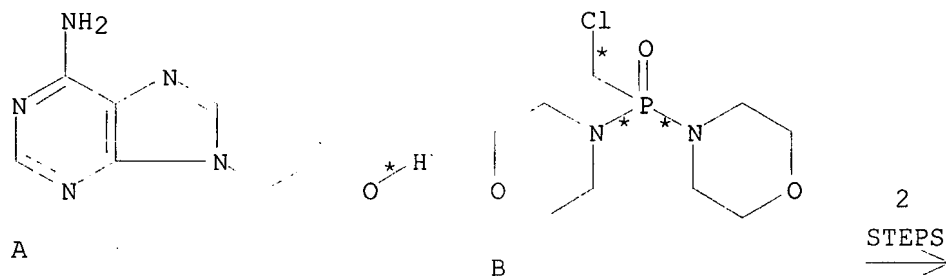
100.0% DONE 1186 VERIFIED 9 HIT RXNS 2 DOCS  
SEARCH TIME: 00.00.01

Searched by: Mary Hale 571-272-2507 REM 1D86

L5 ANSWER 1 OF 2 CASREACT COPYRIGHT 2004 ACS on STN

RX(3) OF 3 COMPOSED OF RX(1), RX(2)

RX(3) A + B ==> F



RX(1) RCT A 707-99-3

STAGE(1)

RGT D 7646-69-7 NaH

SOL 68-12-2 DMF

STAGE(2)

RCT B 7355-28-4

PRO C 322729-88-4

RX(2) RCT C 322729-88-4

RGT G 7647-01-0 HCl

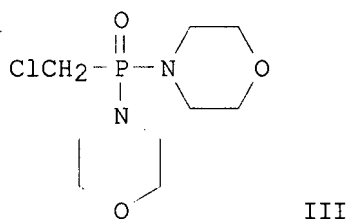
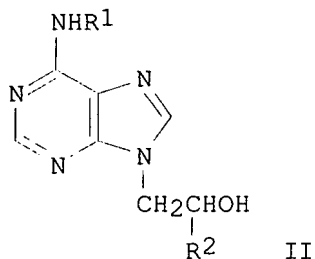
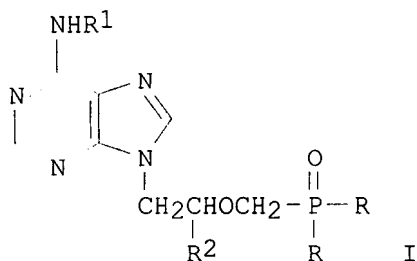
PRO F 106941-25-7

SOL 7732-18-5 Water, 68-12-2 DMF

134:147710 Method for preparation of 9-(2-phosphonylmethoxyalkyl)adenine having antiviral activity. Sato, Tadashi (Kohjin Co., Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 2001031691 A2 20010206, 4 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1999-210487 19990726. PRIORITY: JP 1999-135117 19990517.

GI

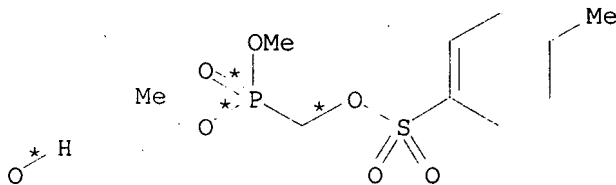
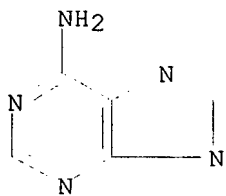
Searched by: Mary Hale 571-272-2507 REM 1D86



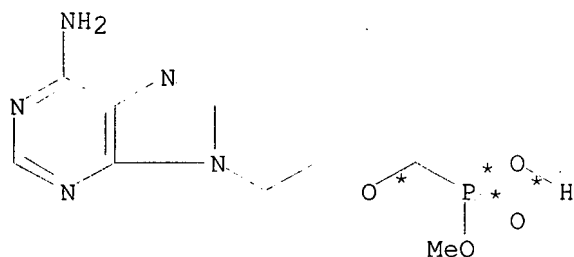
AB The title compds. (I; R = OH, R1 = H; R2 = H, Me), which are useful as antiviral agents, are prepared by etherification of 9-(2-hydroxyalkyl)adenine derivative (II; R1 = H, benzoyl; R2 = same as above) with 4,4'-[(chloromethyl)phosphinylidene]bismorpholine (III) and hydrolysis of the resulting dimorpholidite I (R = morpholino; R1 = H, benzoyl; R2 = same as above). This process does not use specialized reagents in a large quantity and gives the intermediate dimorpholidite in good yield which is hydrolyzed under mild conditions and converted into the desired compds. in good yields. Thus, 0.72 g 9-(2-hydroxyethyl)adenine was dissolved in 20 mL DMF with heating, cooled, treated with 0.48 g NaH in oil, and stirred at room temperature for 30 min, followed by adding 1.08 g III, and the resulting mixture was stirred at 80° for 2 h to give, after workup and crystallization from CHCl3-benzene-Et2O, 1.1 g I (R = morpholino, R1 = R2 = H). The latter compound (0.5 g) was added to DMF-concentrated HCl-H2O (5:1:2 mL), stirred at room temperature for 1 h, treated with Diaion WA-30 to remove HCl, diluted with H2O, adjusted to pH 10 by adding aqueous NH3, and applied on a column of Diaion SA11B (acid form), washing the column with H2O and eluting it with AcOH to give 9-(2-phosphonylmethoxyethyl)adenine.

L5 ANSWER 2 OF 2 CASREACT COPYRIGHT 2004 ACS on STN

RX(3) OF 92 A + F ==> G...



(3)  $\rightarrow$

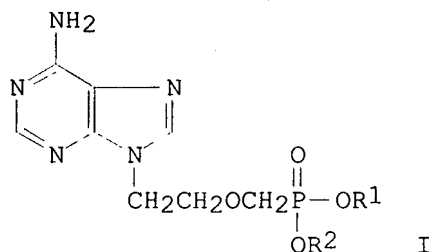


G  
YIELD 26%

RX(3) RCT A 707-99-3, F 80792-13-8  
RGT H 7646-69-7 NaH  
PRO G 107021-27-2  
SOL 68-12-2 DMF

109:129559 Acyclic nucleotide analogs. Part III. Synthesis of 9-(2-phosphonylmethoxyethyl)adenine and related compounds. Holy, Antonin; Rosenberg, Ivan (Inst. Org. Chem. Biochem., Czech. Acad. Sci., Prague, 166 10/6, Czech.). Collection of Czechoslovak Chemical Communications, 52(11), 2801-9 (English) 1987. CODEN: CCCCAK. ISSN: 0366-547X.

GI



AB Adenine was treated with NaH in DMF and then with  $\text{RCH}_2\text{CH}_2\text{OCH}_2\text{P}(\text{O})(\text{OEt})_2$  ( $\text{R} = \text{Cl}, \text{Br}, \text{p-MeC}_6\text{H}_4\text{SO}_3$ ), to give 46-64% acyclic nucleotide analog I ( $\text{R}_1 = \text{R}_2 = \text{Et}$ ), which was treated with  $\text{Me}_3\text{SiBr}$  in MeCN to give 73% title compound [I;  $\text{R}_1 = \text{R}_2 = \text{H}$  (II)]. II was converted to the diphosphate I [ $\text{R}_1 = \text{P}(\text{O})(\text{OH})_2$ ,  $\text{R}_2 = \text{H}$ ] and triphosphate I [ $\text{R}_1 = \text{P}(\text{O})(\text{OH})\text{OP}(\text{O})(\text{OH})_2$ ,  $\text{R}_2 = \text{H}$ ] via phosphorylation of its morpholide.

=> del his y

=>

17263

Access DB# \_\_\_\_\_

# SEARCH REQUEST FORM

Scientific and Technical Information Center

1052393D

Requester's Full Name: Berd Examiner #: Berd Date: 10/4  
 Art Unit: 1624 Phone Number 30 84716 Serial Number: 02/25540  
 Mail Box and Bldg/Room Location: 4D15 Results Format Preferred (circle): PAPER DISK E-MAIL  
4E12

If more than one search is submitted, please prioritize searches in order of need.

\*\*\*\*\*

Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc., if known. Please attach a copy of the cover sheet, pertinent claims, and abstract

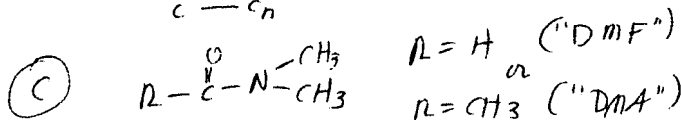
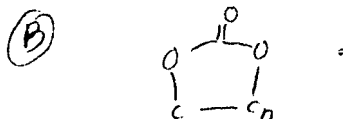
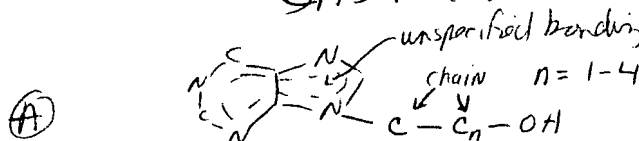
Title of Invention: \_\_\_\_\_

Inventors (please provide full names): \_\_\_\_\_

Earliest Priority Filing Date: \_\_\_\_\_

\*For Sequence Searches Only\* Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.

CAS REACT



A & B are reactant = product

(A) Reactant

(C) - Solvent

POINT OF CONTACT:  
 PAUL SCHULWITZ  
 TECHNICAL INFO. SPECIALIST  
 CM1 6B06 TEL. (703) 305-1954

## STAFF USE ONLY

	Type of Search	Vendors and cost where applicable
Searcher: _____	NA Sequence (#) _____	STN <u>594.85</u>
Searcher Phone #: _____	AA Sequence (#) _____	Dialog _____
Searcher Location: _____	Structure (#) <u>3</u>	Questel/Orbit _____
Date Searcher Picked Up: <u>10/7</u>	Bibliographic _____	Dr. Link _____
Date Completed: <u>10/7</u>	Litigation _____	Lexis/Nexis _____
Searcher Prep & Review Time: <u>10</u>	Fulltext _____	Sequence Systems _____
Clerical Prep Time: _____	Patent Family _____	WWW/Internet _____
Online Time: <u>15</u>	Other _____	Other (specify) _____

# CASREACT

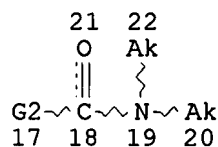
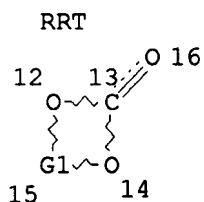
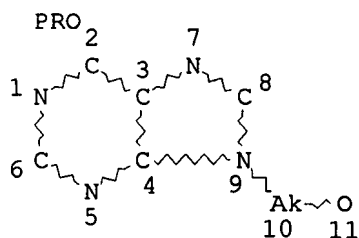
Berch 02/255,540

October 7, 2002

=> d que

L17

STR



Ak @23

REP G1=(1-5) C

VAR G2=H/23

NODE ATTRIBUTES:

CONNECT IS E2 RC AT 10

CONNECT IS E1 RC AT 11

CONNECT IS E1 RC AT 20

CONNECT IS E1 RC AT 22

CONNECT IS E1 RC AT 23

DEFAULT MLEVEL IS ATOM

GGCAT IS LOC AT 20

GGCAT IS LOC AT 22

GGCAT IS LOC AT 23

DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED

NUMBER OF NODES IS 23

STEREO ATTRIBUTES: NONE

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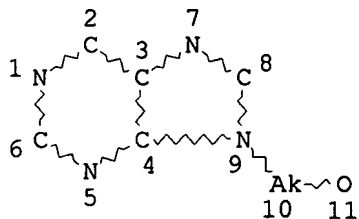
No hits for Reactant + Product + Solvent

-probable that Structure of Solvent not indexed.



=> d que

L1 STR



NODE ATTRIBUTES:

CONNECT IS E2 RC AT 10

CONNECT IS E1 RC AT 11

DEFAULT MLEVEL IS ATOM

DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

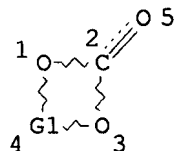
RING(S) ARE ISOLATED OR EMBEDDED

NUMBER OF NODES IS 11

STEREO ATTRIBUTES: NONE

L3 706 SEA FILE=REGISTRY SSS FUL L1

L4 STR



REP G1=(1-5) C

NODE ATTRIBUTES:

DEFAULT MLEVEL IS ATOM

DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED

NUMBER OF NODES IS 5

STEREO ATTRIBUTES: NONE

L6 11907 SEA FILE=REGISTRY SSS FUL L4

L7 18 SEA FILE=HCAPLUS ABB=ON PLU=ON L3(L) PREP/RL AND L6(L) (RGT OR RCT OR RACT)/RL

L14 2668 SEA FILE=REGISTRY ABB=ON PLU=ON (127-19-5/CRN OR 68-12-2/CRN)

L16 0 SEA FILE=HCAPLUS ABB=ON PLU=ON L14 AND L7

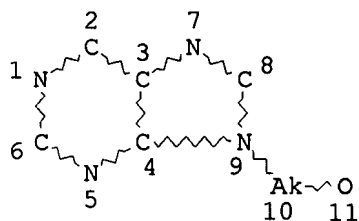
18 hits for  
Reactant +  
Product.

Zero hits  
for Reactant + Product  
+ component Reg. Nos.  
for DMA or DMF

- possible that solvent was not indexed  
in the 18 hits.

=&gt; d que 17

L1 STR

*Product*

## NODE ATTRIBUTES:

CONNECT IS E2 RC AT 10

CONNECT IS E1 RC AT 11

DEFAULT MLEVEL IS ATOM

DEFAULT ECLEVEL IS LIMITED

## GRAPH ATTRIBUTES:

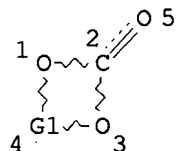
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NUMBER OF NODES IS 11

## STEREO ATTRIBUTES: NONE

L3 706 SEA FILE=REGISTRY SSS FUL L1

L4 STR

*Reactant*

REP G1=(1-5) C

## NODE ATTRIBUTES:

DEFAULT MLEVEL IS ATOM

DEFAULT ECLEVEL IS LIMITED

## GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED

NUMBER OF NODES IS 5

## STEREO ATTRIBUTES: NONE

L6 11907 SEA FILE=REGISTRY SSS FUL L4

L7 18 SEA FILE=HCAPLUS ABB=ON PLU=ON L3(L)PREP/RL AND L6(L)(RGT OR RCT OR RACT)/RL

=&gt; d ibib ab hitstr 1-18 17

L7 ANSWER 1 OF 18 HCAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 2002:90059 HCAPLUS

DOCUMENT NUMBER: 136:118705

TITLE: Preparation of prodrugs amino acid methoxyphosphonate acyclic nucleotide analogs as antiviral or antitumor agents and their use in therapy and prophylaxis

INVENTOR(S): Becker, Mark W.; Chapman, Harlan H.; Cihlar, Tomas;

Eisenberg, Eugene J.; He, Gong-Xin; Kernan, Michael R.; Lee, William A.; Prisbe, Ernest J.; Rohloff, John C.; Sparacino, Mark L.  
 PATENT ASSIGNEE(S): Gilead Sciences, Inc., USA  
 SOURCE: PCT Int. Appl., 59 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002008241	A2	20020131	WO 2001-US23104	20010720
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				

US 2002119443 A1 20020829 US 2001-909560 20010720

PRIORITY APPLN. INFO.: US 2000-220021P P 20000721

OTHER SOURCE(S): MARPAT 136:118705

AB A novel method is provided for screening prodrugs of methoxyphosphonate nucleotide analogs is to identify prodrugs selectively targeting desired tissues with antiviral or antitumor activity. This method has led to the identification of novel mixed ester-amidates of PMPA for retroviral or hepadnaviral therapy, including compds. I, wherein R1 is amino, alkylamino, oxo, dialkylamino; R2 is amino, H; R3 is H, Me; R4 is Me, amino acid residue; R5, R6 are independently H, alkyl, alkenyl, alkynyl, aryl or arylalkyl which is substituted with from 1 to 3 substituents selected from alkylamino, alkylaminoalkyl, dialkylaminoalkyl, dialkylamino, hydroxy, oxo, halo, amino, alkylthio, alkoxy, and their use in therapy and prophylaxis. Also provided is an improved method for the use of magnesium alkoxide for the prepn. of starting materials and compds. for use herein. Thus, fumarate salt of I (R1 = NH2, R2 = H, R3 = R4 = Me, R5 = Ph, R6 = iPr) was prepd. and tested in vitro and in dogs as antiviral agent.

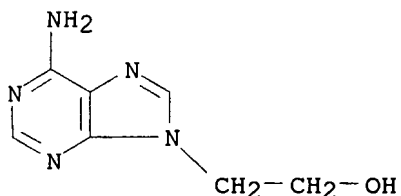
IT 707-99-3P 14047-28-0P

RL: IMF (Industrial manufacture); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(prepn. of prodrugs amino acid methoxyphosphonate acyclic nucleotide analogs as antiviral or antitumor agents and their use in therapy and prophylaxis)

RN 707-99-3 HCAPLUS

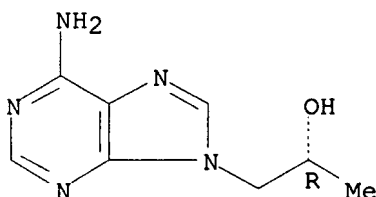
CN 9H-Purine-9-ethanol, 6-amino- (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)



RN 14047-28-0 HCAPLUS

CN 9H-Purine-9-ethanol, 6-amino-.alpha.-methyl-, (.alpha.R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



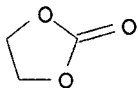
IT 96-49-1, Ethylene carbonate 16606-55-6

RL: RCT (Reactant); RACT (Reactant or reagent)

(prepn. of prodrugs amino acid methoxyphosphonate acyclic nucleotide analogs as antiviral or antitumor agents and their use in therapy and prophylaxis)

RN 96-49-1 HCAPLUS

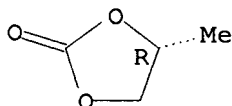
CN 1,3-Dioxolan-2-one (9CI) (CA INDEX NAME)



RN 16606-55-6 HCAPLUS

CN 1,3-Dioxolan-2-one, 4-methyl-, (4R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



L7 ANSWER 2 OF 18 HCAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 2001:573265 HCAPLUS

DOCUMENT NUMBER: 135:137342

TITLE: Preparation of 9-(2-hydroxyalkyl)purines or 1-(2-hydroxyalkyl)pyrimidines

INVENTOR(S): Yaegashi, Keisuke; Furukawa, Yoshiaki; Yoshimoto, Hiroshi

PATENT ASSIGNEE(S): Daiso Co., Ltd., Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 6 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2001213867	A2	20010807	JP 2000-18777	20000127

OTHER SOURCE(S): CASREACT 135:137342; MARPAT 135:137342

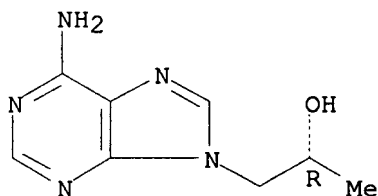
AB Title compds. I [Y = CR1R2CR3R4OH; R1-R4 = H, (un)substituted alkyl, aralkyl, aryl, alkoxy; X1-X3 = H, halo, amino, OH, alkyl, alkoxy, alkylthio, etc.] or II (Y, R1-R4, = same as above; X4-X6 = H, halo, amino, OH, alkyl, alkoxy, alkylthio, etc.) are prepd. by reaction of 1,3-dioxolan-2-ones III (R1-R4 = same as above) with purines I (Y = H; X1-X3 = same as above ) or pyrimidines II (Y = H; X4-X6 = same as above) in the presence of F salts. Adenine was reacted with (R)-propylene carbonate in the presence of CsF in DMF at 140.degree. for 9 h to give 92% (R)-9-(2-hydroxypropyl)adenine.

IT **14047-28-0P 160616-34-2P 352211-52-0P**  
 RL: IMF (Industrial manufacture); SPN (Synthetic preparation); **PREP**  
**(Preparation)**  
 (prepn. of (hydroxyalkyl)purines or (hydroxyalkyl)pyrimidines by condensation of purines or pyrimidines with dioxolanones)

RN 14047-28-0 HCAPLUS

CN 9H-Purine-9-ethanol, 6-amino-.alpha.-methyl-, (.alpha.R)- (9CI) (CA INDEX NAME)

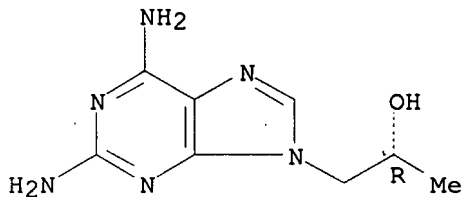
Absolute stereochemistry.



RN 160616-34-2 HCAPLUS

CN 9H-Purine-9-ethanol, 2,6-diamino-.alpha.-methyl-, (.alpha.R)- (9CI) (CA INDEX NAME)

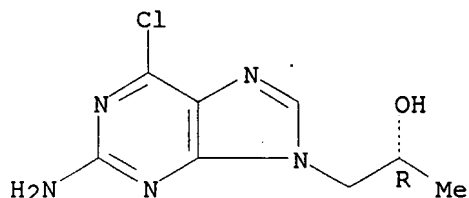
Absolute stereochemistry.



RN 352211-52-0 HCAPLUS

CN 9H-Purine-9-ethanol, 2-amino-6-chloro-.alpha.-methyl-, (.alpha.R)- (9CI)  
(CA INDEX NAME)

Absolute stereochemistry.



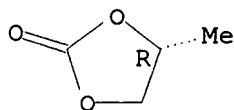
IT 16606-55-6 17327-06-9 22147-28-0

RL: RCT (Reactant); RACT (Reactant or reagent)  
(prepn. of (hydroxyalkyl)purines or (hydroxyalkyl)pyrimidines by  
condensation of purines or pyrimidines with dioxolanones)

RN 16606-55-6 HCAPLUS

CN 1,3-Dioxolan-2-one, 4-methyl-, (4R)- (9CI) (CA INDEX NAME)

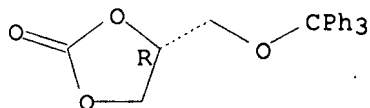
Absolute stereochemistry. Rotation (+).



RN 17327-06-9 HCAPLUS

CN 1,3-Dioxolan-2-one, 4-[(triphenylmethoxy)methyl]-, (4R)- (9CI) (CA INDEX NAME)

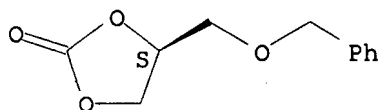
Absolute stereochemistry.



RN 22147-28-0 HCAPLUS

CN 1,3-Dioxolan-2-one, 4-[(phenylmethoxy)methyl]-, (4S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L7 ANSWER 3 OF 18 HCAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 2000:458346 HCAPLUS

DOCUMENT NUMBER: 133:220058

TITLE: Synthesis and uptake of nitric oxide-releasing drugs by the P2 nucleoside transporter in Trypanosoma equiperdum

AUTHOR(S): Soulere, Laurent; Hoffmann, Pascal; Bringaud, Frederic; Perie, Jacques

CORPORATE SOURCE: Laboratoire de Synthese et Physico-Chimie de Molecules d'Interet Biologique- ESA-CNRS 5068. Universite de Toulouse III, Toulouse, 31062, Fr.

SOURCE: Bioorganic & Medicinal Chemistry Letters (2000), 10(12), 1347-1350  
CODEN: BMCLE8; ISSN: 0960-894X

PUBLISHER: Elsevier Science Ltd.

DOCUMENT TYPE: Journal

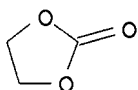
LANGUAGE: English

AB A series of S-nitrosothiols, structurally related to the NO.cntdot.-donor S-nitroso-N-acetylpenicillamine, and of org. nitrate esters that contain amidine groups which specify a recognition via the trypanosomal purine transporter P2, were synthesized and tested for their ability to inhibit the uptake of [2-3H]adenosine on Trypanosoma equiperdum. All of the compds. which possess a melaninyl-, adenine- or adenosine-based recognition motif strongly inhibited the uptake of adenosine by the transporter P2, whereas the benzamidine and the furoxan were poor substrates. All of the nitric oxide-releasing drugs except for one showed weak in vitro antiparasitic activity against T. equiperdum at relevant concns.

IT 96-49-1, Ethylene carbonate  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(synthesis and uptake of nitric oxide-releasing drugs by P2 nucleoside transporter in Trypanosoma equiperdum in relation to antiparasitic activity)

RN 96-49-1 HCAPLUS

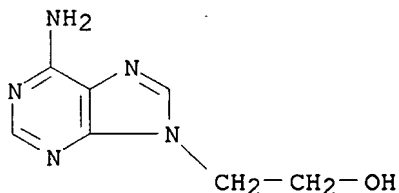
CN 1,3-Dioxolan-2-one (9CI) (CA INDEX NAME)



IT 707-99-3P  
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
(synthesis and uptake of nitric oxide-releasing drugs by P2 nucleoside transporter in Trypanosoma equiperdum in relation to antiparasitic activity)

RN 707-99-3 HCAPLUS

CN 9H-Purine-9-ethanol, 6-amino- (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)



REFERENCE COUNT: 21 THERE ARE 21 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 4 OF 18 HCAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 2000:420970 HCAPLUS

DOCUMENT NUMBER: 133:63954

TITLE: Pharmaceutical formulations

INVENTOR(S): Dahl, Terrence C.; Yuan, Lung-chi J.

PATENT ASSIGNEE(S): Gilead Sciences, Inc., USA

SOURCE: PCT Int. Appl., 52 pp.

CODEN: PIXXD2

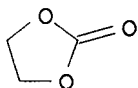
DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000035460	A2	20000622	WO 1999-US29626	19991214
WO 2000035460	A3	20001109		
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
EP 1140114	A2	20011010	EP 1999-967310	19991214
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
BR 9916820	A	20011030	BR 1999-16820	19991214
JP 2002532429	T2	20021002	JP 2000-587780	19991214
PRIORITY APPLN. INFO.:				
			US 1998-112403P	P 19981215
			US 1998-211613	A1 19981215
			WO 1999-US29626	W 19991214
AB The invention provides compns. comprising the nucleotide analog 9-[2-[[bis[(pivaloyloxy)methyl]phosphono]methoxy]ethyl]adenine (I) and an alk. excipient with or without L-carnitine-L-tartrate. The compns. are more stable than those previously described. The invention also provides methods to make the compns. and their intermediates. Thus, a tablet formulation contained I 20.0, pregelatinized starch 5.0, Croscarmellose sodium 6.0, lactose monohydrate 58.0, MgCO <sub>3</sub> 4.0, talc 6.0, and Mg stearate 1.0% by wt.				
IT 96-49-1, Ethylene carbonate				
RL: RCT (Reactant); RACT (Reactant or reagent)				
(pharmaceutical formulations contg. bis(pivaloyloxy)methylphosphonomethoxyethyladenine)				
RN 96-49-1 HCAPLUS				
CN 1,3-Dioxolan-2-one (9CI) (CA INDEX NAME)				





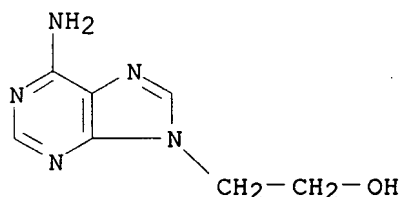
IT 707-99-3P

RL: RCT (Reactant); SPN (Synthetic preparation); **PREP****(Preparation)**; RACT (Reactant or reagent)

(pharmaceutical formulations contg. bis(pivaloyloxy)methylphosphonmethoxyethyladenine)

RN 707-99-3 HCAPLUS

CN 9H-Purine-9-ethanol, 6-amino- (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)



L7 ANSWER 5 OF 18 HCAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 1999:96249 HCAPLUS

DOCUMENT NUMBER: 130:158419

TITLE: Antiviral nucleotide analog composition and synthesis method

INVENTOR(S): Munger, John D., Jr.; Rohloff, John C.; Schultze, Lisa M.

PATENT ASSIGNEE(S): Gilead Sciences, Inc., USA

SOURCE: PCT Int. Appl., 43 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9905150	A1	19990204	WO 1998-US15254	19980723
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, HR, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
US 5935946	A	19990810	US 1997-900752	19970725
AU 9885827	A1	19990216	AU 1998-85827	19980723
EP 998480	A1	20000510	EP 1998-937022	19980723
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
BR 9811045	A	20000822	BR 1998-11045	19980723
JP 2002511098	T2	20020409	JP 1999-510067	19980723
EP 1243593	A2	20020925	EP 2002-10677	19980723
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, CY, AL				
EP 1243590	A2	20020925	EP 2002-10678	19980723
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,				

IE, SI, LT, LV, FI, RO, CY, AL  
PRIORITY APPLN. INFO.:

US 1997-53777P P 19970725  
US 1997-900752 A1 19970725  
EP 1998-937022 A3 19980723  
WO 1998-US15254 W 19980723

OTHER SOURCE(S): MARPAT 130:158419

AB The invention provides a compn. comprising 9-[2-(R)-[[Bis[[[(isopropoxycarbonyl)oxy]methoxy]phosphinoyl]methoxy]propyl]adenine [bis(POC)PMPA] and fumaric acid (1:1) for oral delivery of (R)-9-[2-(phosphonomethoxy)propyl]adenine (PMPA). The compn. is useful as an intermediate for the prepn. of antiviral compds., or is useful for administration to patients for antiviral therapy or prophylaxis. The compn. is particularly useful when administered orally. The invention also provides methods to make PMPA and intermediates in PMPA synthesis. Embodiments include lithium t-butoxide, 9-(2-hydroxypropyl)adenine and di-Et p-toluenesulfonylmethoxy-phosphonate in an org. solvent such as DMF. The reaction results in di-Et PMPA preps. contg. an improved byproduct profile compared to di-Et PMPA made by prior methods. "Bis(POC)PMPA" fumarate, or BPPF, was prepd. in 7 steps via reaction of (R)-4-methyl-1,3-dioxolan-2-one with adenine and etherification of the product with (EtO)2P(O)CH2-OTs.

IT 14047-28-0P 16606-55-6P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP

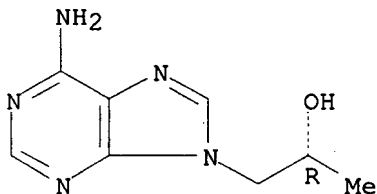
(Preparation); RACT (Reactant or reagent)

(prepn. of (phosphonomethoxypropyl)adenine analogs for oral drug delivery)

RN 14047-28-0 HCAPLUS

CN 9H-Purine-9-ethanol, 6-amino-.alpha.-methyl-, (.alpha.R)- (9CI) (CA INDEX NAME)

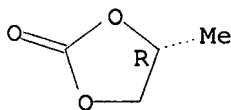
Absolute stereochemistry.



RN 16606-55-6 HCAPLUS

CN 1,3-Dioxolan-2-one, 4-methyl-, (4R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



REFERENCE COUNT:

3

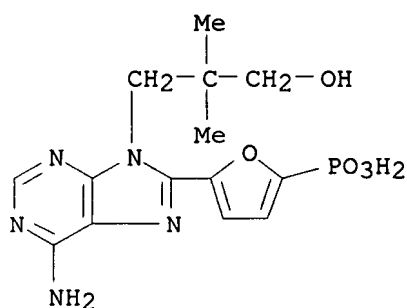
THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 6 OF 18 HCAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 1998:612106 HCAPLUS

DOCUMENT NUMBER: 129:260281  
 TITLE: Preparation of novel purines for use as inhibitors of fructose-1,6-bisphosphatase  
 INVENTOR(S): Dang, Qun; Erion, Mark D.; Reddy, M. Rami; Robinsion, Edward D.; Kasibhatla, Srinivas Rao; Reddy, K. Raja  
 PATENT ASSIGNEE(S): Metabasis Therapeutics, Inc., USA  
 SOURCE: PCT Int. Appl., 126 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9839344	A1	19980911	WO 1998-US4502	19980306
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, GW, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
AU 9864520	A1	19980922	AU 1998-64520	19980306
US 6284748	B1	20010904	US 1998-36327	19980306
PRIORITY APPLN. INFO.:			US 1997-40623P	P 19970307
			WO 1998-US4502	W 19980306
AB	Purines I [A = H, amino, sulfonylamino, alkoxy, alkylthio, halogen, alkyl, carbamoyl, guanidine, amidine, perhaloalkyl; E = H, halogen, alkylthio, perhaloalkyl, alkyl, alkenyl, alkynyl, alkoxy, CN, amino; X = alkylamino, alkyl, alkenyl, alkynyl, alkyl(carboxyl), alkyl(hydroxy), alkyl(phosphonate), alkyl(sulfonate), aryl, alkylaminoalkyl, alkoxyalkyl, alkylthioalkyl, alkylthio, alicyclic, 1,1-dihaloalkyl, carbonylalkyl, aminocarbonylamino, alkylaminocarbonyl, alkylcarbonylamino, aralkyl, and alkylaryl; Y = H, alkyl, alkenyl, alkynyl, aryl, alicyclic, aralkyl, aryloxyalkyl, alkoxyalkyl, acyl, sulfonyl, carboxyl, carbamoyl, amino, alkoxy; XY = cyclic group including cyclic alkyl, heterocyclic, and aryl; R1 = H, alkyl, aryl, alicyclic; R1R1 = cyclic group including cyclic alkyl, heterocyclic] were prepd. for use as fructose-1,6-bisphosphatase (FBPase) inhibitors for treatment of carbohydrate metab. disorders. Thus, purine II starting from 5-amino-4,6-dichloropyrimidine, phenethylamine, and 2-furaldehyde. The prepd. compds. were tested for a variety of biol. activities including inhibition of FBPase and activity toward AMP binding enzymes such as adenosine kinase.			
IT	<b>213247-52-0P</b> RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); <b>PREP (Preparation)</b> ; USES (Uses) (prepn. of novel purines for use as inhibitors of fructose-1,6-bisphosphatase for treatment of carbohydrate metab. disorders)			
RN	213247-52-0 HCAPLUS			
CN	Phosphonic acid, [5-[6-amino-9-(3-hydroxy-2,2-dimethylpropyl)-9H-purin-8-yl]-2-furanyl]- (9CI) (CA INDEX NAME)			



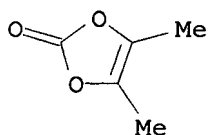
IT 37830-90-3

RL: RCT (Reactant); RACT (Reactant or reagent)

(prepn. of novel purines for use as inhibitors of fructose-1,6-bisphosphatase for treatment of carbohydrate metab. disorders)

RN 37830-90-3 HCAPLUS

CN 1,3-Dioxol-2-one, 4,5-dimethyl- (9CI) (CA INDEX NAME)



IT 91526-18-0P

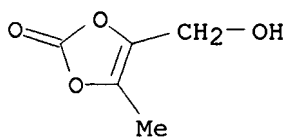
RL: RCT (Reactant); SPN (Synthetic preparation); PREP

(Preparation); RACT (Reactant or reagent)

(prepn. of novel purines for use as inhibitors of fructose-1,6-bisphosphatase for treatment of carbohydrate metab. disorders)

RN 91526-18-0 HCAPLUS

CN 1,3-Dioxol-2-one, 4-(hydroxymethyl)-5-methyl- (9CI) (CA INDEX NAME)



L7 ANSWER 7 OF 18 HCAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 1998:225290 HCAPLUS

DOCUMENT NUMBER: 128:270818

TITLE:

Practical synthesis of the anti-HIV drug, PMPA

AUTHOR(S):

Schultze, Lisa M.; Chapman, Harlan H.; Dubree, Nathan J. P.; Jones, Robert J.; Kent, Kenneth M.; Lee, Thomas T.; Louie, Michael S.; Postich, Michael J.; Prisbe, Ernest J.; Rohloff, John C.; Yu, Richard H.

CORPORATE SOURCE:

Process Chemistry and Analytical Chemistry, Gilead Sciences, Foster City, CA, 94404, USA

SOURCE:

Tetrahedron Letters (1998), 39(14), 1853-1856

CODEN: TELEAY; ISSN: 0040-4039

PUBLISHER: Elsevier Science Ltd.

DOCUMENT TYPE: Journal

LANGUAGE: English

AB The anti-HIV nucleotide analog PMPA can be prepd. on a kilogram-scale by a three step sequence: i) condensation of adenine with (R)-propylene carbonate, ii) alkylation of the resulting (R)-9-(2-hydroxypropyl)adenine with di-Et p-toluenesulfonyloxymethanephosphonate using lithium tert-butoxide and iii) cleavage of the phosphonate ester functionalities with bromotrimethylsilane.

IT 14047-28-0P 16606-55-6P

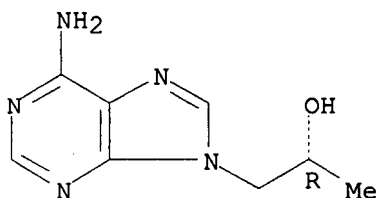
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(practical synthesis of the anti-HIV drug, PMPA)

RN 14047-28-0 HCAPLUS

CN 9H-Purine-9-ethanol, 6-amino-.alpha.-methyl-, (.alpha.R)- (9CI) (CA INDEX NAME)

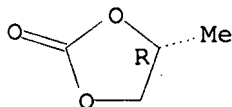
Absolute stereochemistry.



RN 16606-55-6 HCAPLUS

CN 1,3-Dioxolan-2-one, 4-methyl-, (4R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



L7 ANSWER 8 OF 18 HCAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 1996:539978 HCAPLUS

DOCUMENT NUMBER: 125:276420

TITLE: Acyclic analogs of purine nucleosides: one- and two-dimensional 1H and 13C NMR evidence for N-9 and N-7 regioisomers

AUTHOR(S): Raic, S.; Pongracic, M.; Vorkapic-Furac, J.; Vikic-Topic, D.; Mintas, M.

CORPORATE SOURCE: Dep. Organic Chem., Fac. Chem. Eng., Tech., Univ. Zagreb, Croatia

SOURCE: Spectroscopy Letters (1996), 29(6), 1141-1155  
CODEN: SPLEBX; ISSN: 0038-7010

PUBLISHER: Dekker

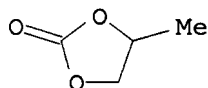
DOCUMENT TYPE: Journal

LANGUAGE: English

AB It has been established by means of 1- and 2-dimensional 1H and 13C NMR spectroscopy that adenine acyclonucleosides prepd. by reaction of adenine

with glycerol .alpha.-chlorohydrin or propylene carbonate are substituted at either N-9 or N-7 with 2',3'-dihydroxyprop-1-yl or 2'-hydroxy-1-Pr, resp. N-3 isomers were not formed, as claimed previously. This was deduced on the basis of chem. shifts, substituent induced chem. shifts, magnitude and multiplicity of C-H couplings as well as connectivities in 2D homo- and heteronuclear correlation spectra.

IT **712-00-5P**, 9-(2-Hydroxyprop-1-yl)adenine  
 RL: PRP (Properties); SPN (Synthetic preparation); **PREP**  
**(Preparation)**  
 (one- and two-dimensional 1H and 13C NMR evidence for N-9 and N-7 regioisomers in synthesis of acyclic analogs of purine nucleosides)  
 RN 712-00-5 HCAPLUS  
 IT **108-32-7**, Propylene carbonate  
 RL: **RCT (Reactant); RACT (Reactant or reagent)**  
 (one- and two-dimensional 1H and 13C NMR evidence for N-9 and N-7 regioisomers in synthesis of acyclic analogs of purine nucleosides)  
 RN 108-32-7 HCAPLUS  
 CN 1,3-Dioxolan-2-one, 4-methyl- (9CI) (CA INDEX NAME)



L7 ANSWER 9 OF 18 HCAPLUS COPYRIGHT 2002 ACS  
 ACCESSION NUMBER: 1996:365991 HCAPLUS  
 DOCUMENT NUMBER: 125:115090  
 TITLE: Method and cyclic carbonates for nucleotide analogs  
 INVENTOR(S): Bischofberger, Norbert W.; Kent, Kenneth M.  
 PATENT ASSIGNEE(S): Gilead Sciences, Inc., USA  
 SOURCE: U.S., 6 pp., Cont. of U. S. Ser. No. 71,117,  
 abandoned.  
 CODEN: USXXAM  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

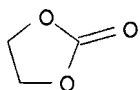
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5514798	A	19960507	US 1995-388125	19950213
US 5686629	A	19971111	US 1995-579499	19951227
PRIORITY APPLN. INFO.:			US 1993-71117	19930602
			US 1995-388125	19950213

OTHER SOURCE(S): MARPAT 125:115090

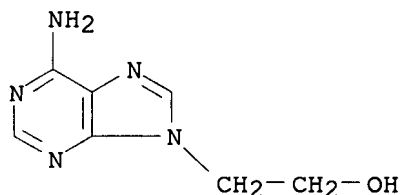
AB An improved method for the prepn. of acyclic nucleotide analogs, i.e. phosphonylmethoxyalkyl-substituted nucleoside bases, comprises first condensing a cyclic carbonate with a purine or pyrimidine base and then reacting the alkylated base with an activated phosphonate. Thus, adenine was alkylated with ethylene carbonate to give 9-(2-hydroxyethyl)adenine which was treated with di-Et toluenesulfonyloxymethylphosphonate and the product deprotected to give 9-[2-(phosphonylmethoxy)ethyl]adenine.

IT **96-49-1**, Ethylene carbonate  
 RL: **RCT (Reactant); RACT (Reactant or reagent)**  
 (prepn. of phosphonylmethoxyalkyl-substituted nucleoside bases)

RN 96-49-1 HCAPLUS  
 CN 1,3-Dioxolan-2-one (9CI) (CA INDEX NAME)



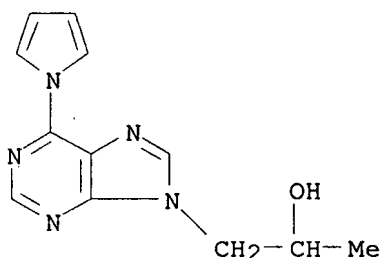
IT 707-99-3P, 9-(2-Hydroxyethyl)adenine  
 RL: RCT (Reactant); SPN (Synthetic preparation); **PREP**  
 (**Preparation**); RACT (Reactant or reagent)  
 (prepn. of phosphonylmethoxyalkyl-substituted nucleoside bases)  
 RN 707-99-3 HCAPLUS  
 CN 9H-Purine-9-ethanol, 6-amino- (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)



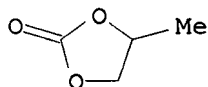
L7 ANSWER 10 OF 18 HCAPLUS COPYRIGHT 2002 ACS  
 ACCESSION NUMBER: 1996:198527 HCAPLUS  
 DOCUMENT NUMBER: 124:316853  
 TITLE: The novel 6-(N-pyrrolyl)purine acyclic nucleosides: H  
 and 13C NMR and x-ray structural study  
 AUTHOR(S): Raic, S.; Pongracic, M.; Vorkapic-Furac, J.;  
 Vikic-Topic, D.; Hergold-Brundic, A.; Nagl, A.;  
 Mintas, M.  
 CORPORATE SOURCE: Dep. of Organic Chemistry, Univ. of Zagreb, Croatia  
 SOURCE: Nucleosides & Nucleotides (1996), 15(4), 937-60  
 CODEN: NUNUD5; ISSN: 0732-8311  
 PUBLISHER: Dekker  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English

AB Synthesis of the novel nucleoside analogs contg. exocyclic pyrrolo moiety  
 and acyclic side chains attached to the purine ring at N-9 and N-7 is  
 described. The site of alkylation was detd. by 1H and 13C NMR on the  
 basis of chem. shifts, C-H coupling consts. and connectivity in NOESY and  
 HETCOR spectra. The N-9 substitution of 9-propenyl-6-(N-pyrrolyl)purine  
 was proved by its x-ray crystallog. anal.

IT 176108-82-0P  
 RL: PRP (Properties); SPN (Synthetic preparation); **PREP**  
 (**Preparation**)  
 (prepn. and spectra of 6-(N-pyrrolyl)purines)  
 RN 176108-82-0 HCAPLUS  
 CN 9H-Purine-9-ethanol, .alpha.-methyl-6-(1H-pyrrol-1-yl)- (9CI) (CA INDEX  
 NAME)

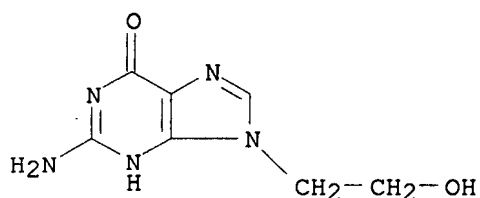


IT 108-32-7, Propylene carbonate  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (prepn. and spectra of 6-(N-pyrrolyl)purines)  
 RN 108-32-7 HCAPLUS  
 CN 1,3-Dioxolan-2-one, 4-methyl- (9CI) (CA INDEX NAME)

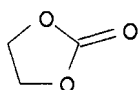


L7 ANSWER 11 OF 18 HCAPLUS COPYRIGHT 2002 ACS  
 ACCESSION NUMBER: 1992:21492 HCAPLUS  
 DOCUMENT NUMBER: 116:21492  
 TITLE: Synthesis of monomers containing guanine or guanine precursors as substituent groups  
 AUTHOR(S): Toucet, Isabel; Aponte, Maria A.  
 CORPORATE SOURCE: Dep. Chem., Univ. Puerto Rico, Mayaguez, 00708, P. R.  
 SOURCE: Journal of Polymer Science, Part A: Polymer Chemistry (1991), 29(13), 1883-8  
 CODEN: JPACEC; ISSN: 0887-624X  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 AB Four new monomers contg. guanine (I) or a I precursor were prepd. These were 2 isomeric acid ester derivs. of I and 2 isomeric vinyl ether derivs. of N2-acetylguanine (II). In the case of the prepn. of the I acid esters, it was necessary to prep. 1st the I alc. derivs. These N-7 and N-9 isomeric alcs. of I were sepd. by fractional crystn. Subsequent esterification of these alcs. with maleic anhydride gave the desired products. In the other case, II was alkylated with 2-chloroethyl vinyl ether to yield the N-7 and N-9 isomers. These were sepd. using flash column chromatog.  
 IT 23169-33-7P, 9-(2'-Hydroxyethyl)guanine  
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
 (prepn. and reaction of, with maleic anhydride)  
 RN 23169-33-7 HCAPLUS  
 CN 6H-Purin-6-one, 2-amino-1,9-dihydro-9-(2-hydroxyethyl)- (9CI) (CA INDEX NAME)





IT 96-49-1, Ethylene carbonate  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (reaction of, with acetylguanine)  
 RN 96-49-1 HCAPLUS  
 CN 1,3-Dioxolan-2-one (9CI) (CA INDEX NAME)



L7 ANSWER 12 OF 18 HCAPLUS COPYRIGHT 2002 ACS  
 ACCESSION NUMBER: 1989:231441 HCAPLUS  
 DOCUMENT NUMBER: 110:231441  
 TITLE: Dihydropyridinecarboxamides as antiallergic and  
 antiinflammatory agents  
 INVENTOR(S): Cooper, Kelvin; Fray, Michael Johnathan; Richardson,  
 Kenneth  
 PATENT ASSIGNEE(S): Pfizer Ltd., UK  
 SOURCE: Eur. Pat. Appl., 17 pp.  
 CODEN: EPXXDW  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 294074	A1	19881207	EP 1988-304691	19880524
EP 294074	B1	19920408		
R: AT, BE, CH, DE, ES, FR, GB, GR, IT, LI, LU, NL, SE				
US 4851412	A	19890725	US 1988-198020	19880524
AT 74602	E	19920415	AT 1988-304691	19880524
ES 2034221	T3	19930401	ES 1988-304691	19880524
AU 8816712	A1	19881201	AU 1988-16712	19880527
DK 8802906	A	19881201	DK 1988-2906	19880527
HU 47933	A2	19890428	HU 1988-2708	19880527
FI 8802538	A	19881201	FI 1988-2538	19880530
FI 88797	B	19930331		
FI 88797	C	19930712		
JP 63310887	A2	19881219	JP 1988-132530	19880530
JP 05087072	B4	19931215		
CA 1302410	A1	19920602	CA 1988-568064	19880530
PRIORITY APPLN. INFO.:			GB 1987-12747	19870530
			EP 1988-304691	19880524
OTHER SOURCE(S):		MARPAT 110:231441		

AB Title compds. I [R = (substituted) Ph; R1, R2 = H, C1-6 alkyl; R1R2N = pyrrolidino, piperidino, morpholino, piperazino, N-alkylpiperazino, N-alkanoylpiperazino; R2 = H, C1-4 alkyl and R1 = C3-7 cycloalkyl, aryl, indanyl, heteroaryl, (substituted) C1-4 alkyl; R3 = OH, C1-6 alkoxy, aralkoxy, (substituted) amino; Y = C2-8 alkylene; X = 1-, 2-, or 3-imidazopyrimidyl or 1-, 2-, or 3-imidazopyrimidyl which may be substituted], useful as allergy and inflammation inhibitors (no data), are prepd. from R1R2NCOCH:CMenH2 (II), RCHO, and R3COCH2COCH2OYX (III). Treatment of 2-methyl-1-(2-hydroxyethyl)imidazo[4,5-c]pyridine with NaH in THF under sonication for 2 h, followed by addn. of ClCH2COCH2CO2CHMe2 under sonication for 5 h gave 58% III [R3 = Me2CHO; XY = 2-[2-methyl-1-imidazo[4,5-c]pyridyl]ethyl], which was refluxed with 2-BrC6H4CHO and II (R1 = H; R2 = Me3C) in Me2CHOH to afford 35% I [R = 2-BrC6H4; R1 = H; R2 = Me3C; R3 = Me2CHO; XY = 2-[2-methyl-1-imidazo[4,5-c]pyridyl]ethyl].

IT 120887-97-0P

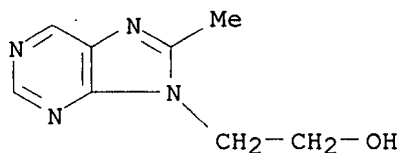
RL: RCT (Reactant); SPN (Synthetic preparation); **PREP**

**(Preparation)**

(prepn. and reaction of, in prepn. of dihydropyridinecarboxamide antiallergic and antiinflammatory agents)

RN 120887-97-0 HCAPLUS

CN 9H-Purine-9-ethanol, 8-methyl- (9CI) (CA INDEX NAME)



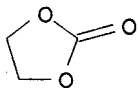
IT 96-49-1, Ethylene carbonate

RL: **RCT (Reactant)**

(reaction of, in prepn. of dihydropyridinecarboxamide antiallergic and antiinflammatory agent)

RN 96-49-1 HCAPLUS

CN 1,3-Dioxolan-2-one (9CI) (CA INDEX NAME)



L7 ANSWER 13 OF 18 HCAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 1986:202761 HCAPLUS

DOCUMENT NUMBER: 104:202761

TITLE: Studies on S-adenosyl-L-homocysteine hydrolase. XVI. 9-(Aminoalkyl)-8-hydroxyadenines: preparation, mechanism of formation, and use in affinity chromatography of S-adenosyl-L-homocysteine hydrolase

AUTHOR(S): Holy, Antonin; Kohoutova, Jitka; Merta, Ales; Votruba, Ivan

CORPORATE SOURCE: Inst. Org. Chem. Biochem., Czech. Acad. Sci., Prague, 166 10, Czech.

SOURCE: Collect. Czech. Chem. Commun. (1986), 51(2), 459-77

CODEN: CCCCCA; ISSN: 0366-547X

DOCUMENT TYPE:

Journal

LANGUAGE:

English

AB A series of 8-bromo-9-aminoalkyladenine derivs. were prepd. by reaction of the aminoalkyladenines with HBr and reacted with NH<sub>3</sub> to generate intramol. 5- and 6-membered cyclic ethers. The resulting ethers were opened regiospecifically, producing 2- and 3-aminoalkyl-8-hydroxyadenines which were subsequently immobilized on CH-Sephadex 4B. The utility of these immobilized aminoalkylhydroxyadenines as media for affinity chromatog. for S-adenosyl-L-homocysteine hydrolase of rat liver was then detd.; 4 of the Sephadex-linked compds., contg. the NH<sub>2</sub> group on the primary C, appeared suitable for enzyme chromatog. The inhibition of the enzyme by the aminoalkylhydroxyadenines was also examd.; inhibition was not particularly strong.

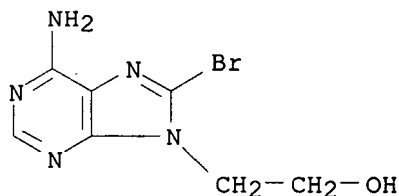
IT 43047-77-4P 98411-75-7P 101967-11-7P

RL: RCT (Reactant); SPN (Synthetic preparation); **PREP****(Preparation)**

(prepn. and reaction with ammonia)

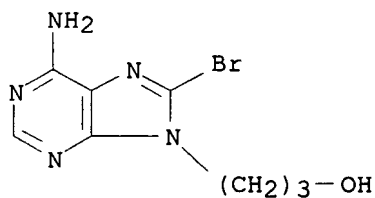
RN 43047-77-4 HCAPLUS

CN 9H-Purine-9-ethanol, 6-amino-8-bromo- (9CI) (CA INDEX NAME)



RN 98411-75-7 HCAPLUS

CN 9H-Purine-9-propanol, 6-amino-8-bromo- (9CI) (CA INDEX NAME)



RN 101967-11-7 HCAPLUS

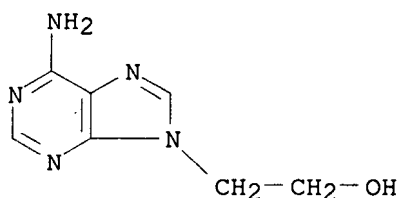
IT 707-99-3P 711-64-8P 14047-26-8P

RL: RCT (Reactant); SPN (Synthetic preparation); **PREP****(Preparation)**

(prepn. and reaction with bromine)

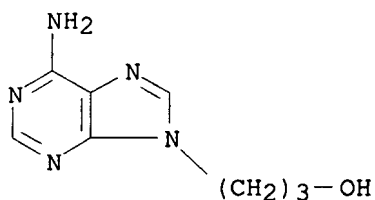
RN 707-99-3 HCAPLUS

CN 9H-Purine-9-ethanol, 6-amino- (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)



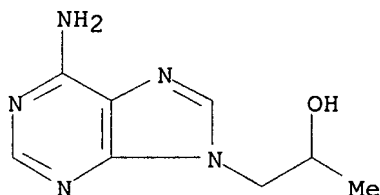
RN 711-64-8 HCAPLUS

CN 9H-Purine-9-propanol, 6-amino- (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)



RN 14047-26-8 HCAPLUS

CN 9H-Purine-9-ethanol, 6-amino-.alpha.-methyl- (9CI) (CA INDEX NAME)

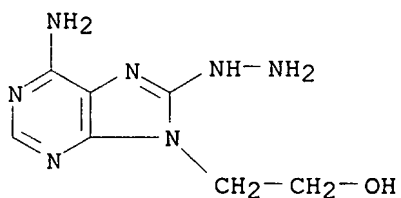


IT 101967-22-0P

RL: RCT (Reactant); SPN (Synthetic preparation); **PREP**  
**(Preparation)**  
 (prepn. and reaction with silver oxide)

RN 101967-22-0 HCAPLUS

CN 8H-Purin-8-one, 6-amino-7,9-dihydro-9-(2-hydroxyethyl)-, hydrazone (9CI)  
 (CA INDEX NAME)

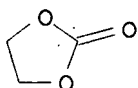


IT 96-49-1

RL: **RCT (Reactant)**  
 (reaction of, with adenine)

RN 96-49-1 HCAPLUS

CN 1,3-Dioxolan-2-one (9CI) (CA INDEX NAME)



L7 ANSWER 14 OF 18 HCAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 1980:537969 HCAPLUS

DOCUMENT NUMBER: 93:137969

TITLE: Functional polyurethanes and isocyanate-based polymers containing nucleic acid bases

AUTHOR(S): Yokoyama, Tetsuo; Hiraoka, Kyoko

CORPORATE SOURCE: Fac. Eng., Nagasaki Univ., Nagasaki, 852, Japan

SOURCE: Int. Prog. Urethanes (1980), 2, 13-26

CODEN: IPURD9; ISSN: 0147-0671

DOCUMENT TYPE: Journal

LANGUAGE: English

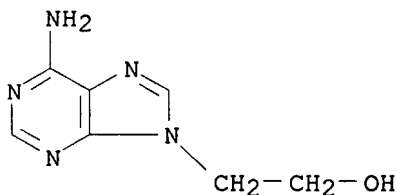
AB Two different types of the isocyanate-based polymers contg. nucleic acid bases in backbone or in pendant groups were prepd. The polymers of the first type were polyureas obtained by the polyaddn. reaction of uracil and adenine with hexamethylene diisocyanate (HMDI). The second type, i.e., cationic polyurethanes contg. nucleic acid bases in pendant groups, were obtained by the Menschutkin reaction of halogenated derivs. of uracil and adenine with a linear polyurethane contg. tertiary N atom which was based on HMDI and N-methyldiethanolamine. Base-base interactions were studied for the polymers by UV, ORD, and NMR spectra. A relatively high value of hypochromicity, .apprx.14%, was obsd. for the mixt. of the ionic polyurethane with uracil pendant and herring sperm DNA. Complementary H-bonding interaction was detected for the mixt. of the ionic polyurethane with adenine pendant and that with uracil pendant. The nonthrombogenic character of the polymers was examd. according to the modified Lee-White method. The ionic polyurethanes with adenine and uracil pendant exhibited fairly good anticlotting properties.

IT 707-99-3P

RL: RCT (Reactant); SPN (Synthetic preparation); **PREP**  
(Preparation)  
(prepn. and bromination of)

RN 707-99-3 HCAPLUS

CN 9H-Purine-9-ethanol, 6-amino- (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)

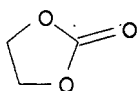


IT 96-49-1

RL: **RCT (Reactant)**  
(reaction of, with adenine)

RN 96-49-1 HCAPLUS

CN 1,3-Dioxolan-2-one (9CI) (CA INDEX NAME)



L7 ANSWER 15 OF 18 HCAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 1978:509378 HCAPLUS

DOCUMENT NUMBER: 89:109378

TITLE: Hydroxyethylation of uracil, adenine, and cytosine by ethylene carbonate

AUTHOR(S): Ustyuzhanin, G. E.; Kolomeitseva, V. V.;  
Tikhomirova-Sidorova, N. S.

CORPORATE SOURCE: Inst. Vysokomol. Soedin., Leningrad, USSR  
SOURCE: Khim. Geterotsikl. Soedin. (1978), (5), 684-9  
CODEN: KGSSAQ; ISSN: 0453-8234

DOCUMENT TYPE: Journal

LANGUAGE: Russian

AB Treatment of uracil (I, R = R1 = H) with ethylene carbonate (II) gave a mixt. contg. I (R = R1 = H) 8, I (R = CH2CH2OH, R1 = H) 4, I (R = H, R1 = CH2CH2OH) (III) 47, and I (R = R1 = CH2CH2OH) 41%, which was chromatographed to give 40% III. Treatment of adenine (IV, R = H) with II gave 80% IV (R = CH2CH2OH) and also the 3-(hydroxyethyl) isomer. Treatment of cytosine (V, R = H) with II gave a mixt. contg. V (R = H) 13 and V (R = CH2CH2OH) (VI) 87% which was chromatographed to yield 70% VI.

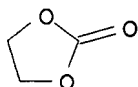
IT 96-49-1

RL: RCT (Reactant)

(hydroxyethylation of nucleoside bases with)

RN 96-49-1 HCAPLUS

CN 1,3-Dioxolan-2-one (9CI) (CA INDEX NAME)

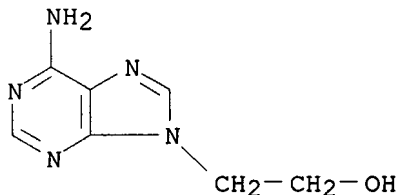


IT 707-99-3P

RL: SPN (Synthetic preparation); PREP (Preparation)  
(prepn. of)

RN 707-99-3 HCAPLUS

CN 9H-Purine-9-ethanol, 6-amino- (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)



L7 ANSWER 16 OF 18 HCAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 1977:551817 HCAPLUS

DOCUMENT NUMBER: 87:151817

TITLE: Synthetic studies with carbonates. Part 6. Syntheses of 2-hydroxyethyl derivatives by reactions of ethylene carbonate with carboxylic acids or heterocycles in the presence of tetraethylammonium halides or under autocatalytic conditions

AUTHOR(S): Yoshino, Teruo; Inaba, Shigeru; Komura, Hajime; Ishido, Yoshiharu

CORPORATE SOURCE: Dep. Chem., Int. Christ. Univ., Tokyo, Japan

SOURCE: J. Chem. Soc., Perkin Trans. 1 (1977), (11), 1266-72

CODEN: JCPRB4

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Et4N+ I- catalyzed reactions of ethylene carbonate (I) with carboxylic acids gave 2-hydroxyethyl esters and the diesters arising from disproportionation of the former products. E.g., I with BzOH and Et4N+ I- at 150-5.degree. for 0.3 h gave 69.5% BzO(CH2)2OH and 22% (BzOCH2)2. The autocatalytic reactions of I with strong carboxylic acids at elevated temps. gave ethylene glycol diesters selectively. Reaction mechanisms are discussed. I or propylene carbonate with acid anhydrides or active acyl compds. in the presence of Et4N+ I- gave alkylene glycol diesters or 2-acyloxyalkyl aryl ethers in high yields. I with heterocyclic compds. contg. an acidic imino H atom, e.g. imidazole, adenine, 2-hydroxypyridine, with or without catalyst gave the corresponding N-2-hydroxyethyl derivs.

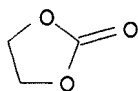
IT 96-49-1

RL: RCT (Reactant)

(hydroxyethylation by, of carboxylic acids and heterocycles)

RN 96-49-1 HCAPLUS

CN 1,3-Dioxolan-2-one (9CI) (CA INDEX NAME)

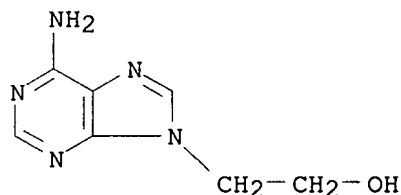


IT 707-99-3P 64330-86-5P 64330-87-6P

RL: SPN (Synthetic preparation); PREP (Preparation)  
(prepn. of)

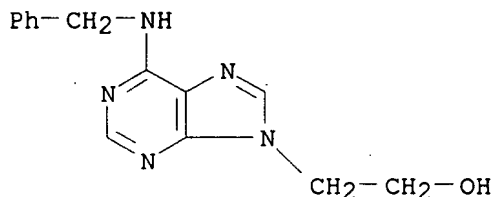
RN 707-99-3 HCAPLUS

CN 9H-Purine-9-ethanol, 6-amino- (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)

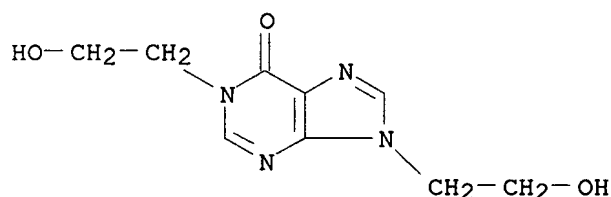


RN 64330-86-5 HCAPLUS

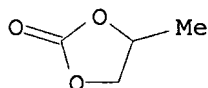
CN 9H-Purine-9-ethanol, 6-[(phenylmethyl)amino]- (9CI) (CA INDEX NAME)



RN 64330-87-6 HCAPLUS  
 CN 6H-Purin-6-one, 1,9-dihydro-1,9-bis(2-hydroxyethyl)- (9CI) (CA INDEX NAME)



IT 108-32-7  
 RL: RCT (Reactant)  
 (reactions of, with acetic anhydride, nitrophenyl acetate, and phthalimide)  
 RN 108-32-7 HCAPLUS  
 CN 1,3-Dioxolan-2-one, 4-methyl- (9CI) (CA INDEX NAME)



L7 ANSWER 17 OF 18 HCAPLUS COPYRIGHT 2002 ACS  
 ACCESSION NUMBER: 1975:514815 HCAPLUS  
 DOCUMENT NUMBER: 83:114815  
 TITLE: .beta.-Hydroxyalkylation with ethylene carbonates in the presence of tetraalkylammonium halides  
 INVENTOR(S): Ishido, Yoshiharu; Yoshino, Teruo; Inaba, Shigeru; Komura, Hajime  
 PATENT ASSIGNEE(S): Kyorin Pharmaceutical Co., Ltd., Japan  
 SOURCE: Japan. Kokai, 8 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 50004012	A2	19750116	JP 1972-126457	19721216

AB Ethylene carbonates or sugar alc. cyclic carbonates I (R = H, alkyl, sugar



alc. group) were treated with imines (e.g. pyrimidines, purines, imidazoles, 2-hydroxypyrimidines, and imides), phenols, carboxylic acids, acid anhydrides, or active acyl compds. in the presence of tetraalkylammonium halides to give .beta.-hydroxyalkyl derivs. R2CH2CH(OR1)R (R2 = moieties of the imines, phenols, or carboxylic acids; R1 = H, acyl). Thus, a mixt. of 3,4;5,6-di-O-isopropylidene-D-mannitol 5,6-carbonate 10, theophylline 11, and Et4NBr 2.5 millimoles in 10 ml DMF was heated at 150-70.degree. to give 75% 7-(3,4;5,6-di-O-isopropylidene-D-mannit-1-yl)theophylline. Heating with HCl-MeOH for 10 hr gave 73% 7-(D-mannit-1-yl)theophylline. Among 32 more products prepd. were N-(2-hydroxyethyl)succinimide, 2-phenoxyethanol, propylene glycol di-O-acetate, and .beta.-acetoxyethylimidazole (from acetylimidazole and ethylene carbonate).

IT 41106-79-0

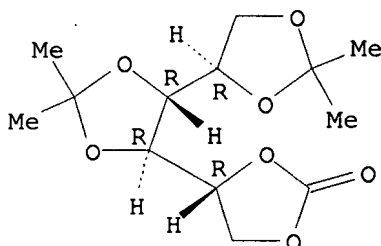
RL: RCT (Reactant)

(hydroxyalkylation of theophylline by)

RN 41106-79-0 HCAPLUS

CN D-Mannitol, 1,2:3,4-bis-O-(1-methylethylidene)-, cyclic carbonate (9CI)  
(CA INDEX NAME)

Absolute stereochemistry.



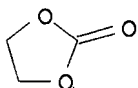
IT 96-49-1

RL: RCT (Reactant)

(hydroxyethylation of acetylimidazole by)

RN 96-49-1 HCAPLUS

CN 1,3-Dioxolan-2-one (9CI) (CA INDEX NAME)



IT 57027-65-3P

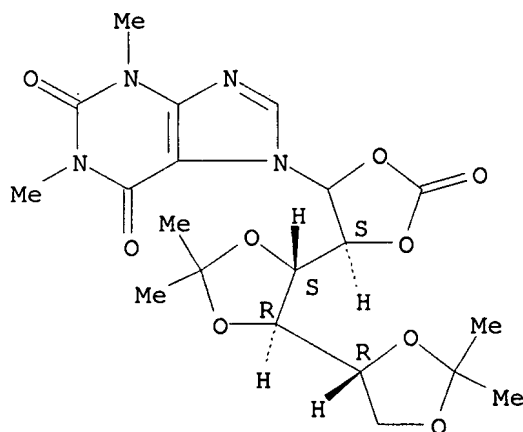
RL: RCT (Reactant); SPN (Synthetic preparation); PREP  
(Preparation)

(prepn. and hydrolysis of)

RN 57027-65-3 HCAPLUS

CN D-Mannitol, 1,2:3,4-bis-O-(1-methylethylidene)-6-C-(1,2,3,6-tetrahydro-1,3-dimethyl-2,6-dioxo-7H-purin-7-yl)-, cyclic 5,6-carbonate (9CI) (CA INDEX NAME)

Absolute stereochemistry.

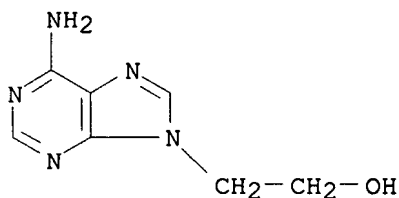


IT 707-99-3P

RL: SPN (Synthetic preparation); PREP (Preparation)  
(prepn. of)

RN 707-99-3 HCAPLUS

CN 9H-Purine-9-ethanol, 6-amino- (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)



L7 ANSWER 18 OF 18 HCAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 1974:3468 HCAPLUS

DOCUMENT NUMBER: 80:3468

TITLE: Reaction of uracil and adenine with ethylene carbonate

AUTHOR(S): Ustyuzhanin, G. E.; Kolomeitseva, V. V.;

Tikhomirova-Sidorova, N. S.

CORPORATE SOURCE: Inst. Vysokomol. Soedin., Leningrad, USSR

SOURCE: Zh. Obshch. Khim. (1973), 43(9), 2093-4

CODEN: ZOKHA4

DOCUMENT TYPE: Journal

LANGUAGE: Russian

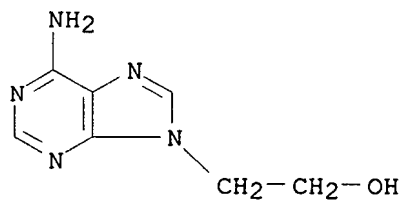
AB Ethylene carbonate reacts with uracil to give 1-(2-hydroxyethyl)uracil and 1,3-bis(2-hydroxyethyl)uracil. At intermediate stages, 3-(2-hydroxyethyl)uracil is also present, the concn. of which reaches a max. of 16% and then declines. The reaction mixt. was analyzed by paper electrophoresis at pH 11 and the 1- and 3-substituted isomers were sepd. by their different mobilities, the 3-isomer being the slower moving. These were characterized by absorption spectra. Similar reaction of adenine gave both 3- and 9-(2-hydroxyethyl)adenines which were identified after sepn. as above.

IT 707-99-3P

RL: SPN (Synthetic preparation); PREP (Preparation)  
(prepn. of)

RN 707-99-3 HCAPLUS

CN 9H-Purine-9-ethanol, 6-amino- (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)



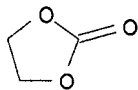
IT 96-49-1

RL: RCT (Reactant)

(reaction of, with uracil and with adenine)

RN 96-49-1 HCAPLUS

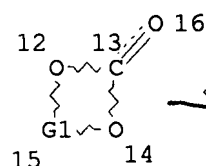
CN 1,3-Dioxolan-2-one (9CI) (CA INDEX NAME)



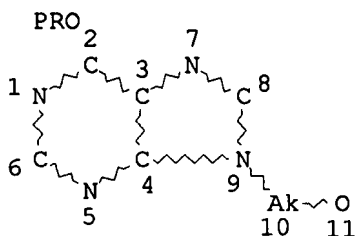
=&gt; d que

L20

RRT



STR



REP G1=(1-5) C

NODE ATTRIBUTES:

CONNECT IS E2 RC AT 10

CONNECT IS E1 RC AT 11

DEFAULT MLEVEL IS ATOM

DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED

NUMBER OF NODES IS 16

STEREO ATTRIBUTES: NONE

L22 2 SEA FILE=CASREACT SSS FUL L20 ( 4 REACTIONS)

*Solvent ignored*

=&gt; d ibib abs crd 1-2

L22 ANSWER 1 OF 2 CASREACT COPYRIGHT 2002 ACS

ACCESSION NUMBER: 135:137342 CASREACT

TITLE: Preparation of 9-(2-hydroxyalkyl)purines or  
1-(2-hydroxyalkyl)pyrimidinesINVENTOR(S): Yaegashi, Keisuke; Furukawa, Yoshiaki; Yoshimoto,  
Hiroshi

PATENT ASSIGNEE(S): Daiso Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 6 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2001213867	A2	20010807	JP 2000-18777	20000127

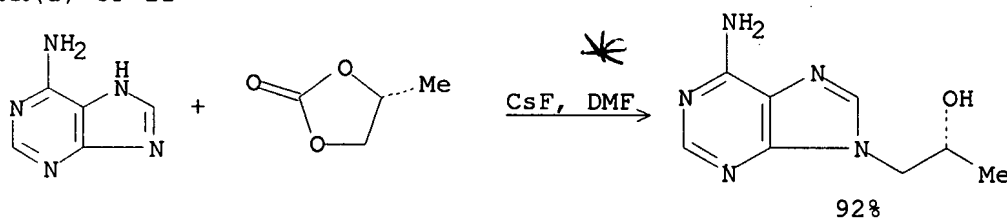
OTHER SOURCE(S): MARPAT 135:137342  
GI

\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

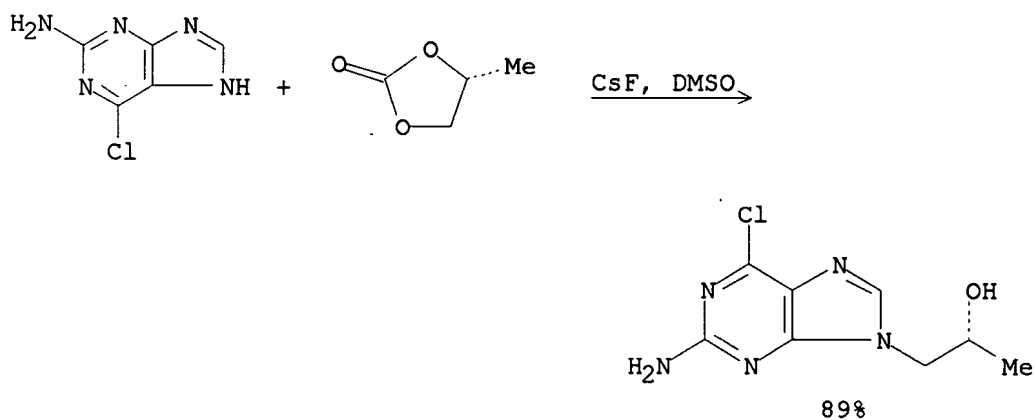
AB Title compds. I [Y = CR1R2CR3R4OH; R1-R4 = H, (un)substituted alkyl,

aralkyl, aryl, alkoxy; X1-X3 = H, halo, amino, OH, alkyl, alkoxy, alkylthio, etc.] or II (Y, R1-R4, = same as above; X4-X6 = H, halo, amino, OH, alkyl, alkoxy, alkylthio, etc.) are prep'd. by reaction of 1,3-dioxolan-2-ones III (R1-R4 = same as above) with purines I (Y = H; X1-X3 = same as above) or pyrimidines II (Y = H; X4-X6 = same as above) in the presence of F salts. Adenine was reacted with (R)-propylene carbonate in the presence of CsF in DMF at 140.degree. for 9 h to give 92% (R)-9-(2-hydroxypropyl)adenine.

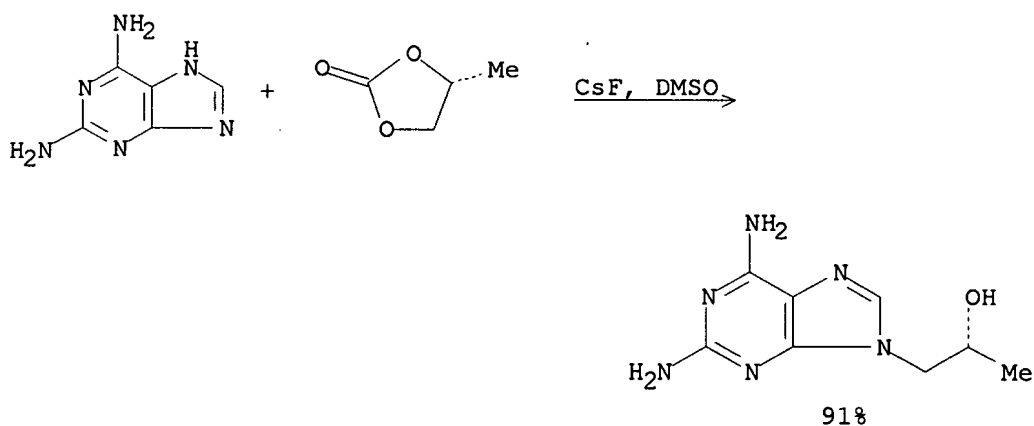
RX(1) OF 11



RX(2) OF 11



RX(3) OF 11



L22 ANSWER 2 OF 2 CASREACT COPYRIGHT 2002 ACS

ACCESSION NUMBER: 73:25332 CASREACT

TITLE: Vinyl compounds and other monomers containing heterocyclic moieties of nucleic acids

AUTHOR(S): Imoto, Minoru; Takemoto, Kiichi

CORPORATE SOURCE: Fac. Eng., Osaka City Univ., Osaka, Japan

SOURCE: Synthesis (1970), 2(4), 173-9

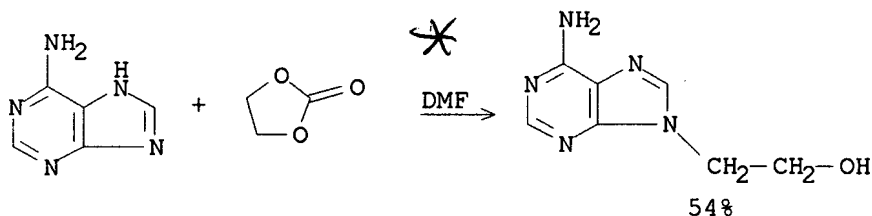
CODEN: SYNTBF

DOCUMENT TYPE: Journal; General Review

LANGUAGE: English

AB Prepn. and polymn. of N-vinyl and related compds., epoxy compds., and amino acids, all of which contain nucleic bases, are reviewed with 21 refs.

RX(2) OF 2



NOTE: Classification: N-Alkylation; Decarboxylation; Ring cleavage; #  
Conditions: (NaOH) DMF Rf 1h